W03069225

Severn Trent St. Louis

Quanterra Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

0053052

CASE NARRATIVE

Bechtel Hanford Incorporated
3350 George Washington Way
Richland, Washington 99352

RECEIVED
APR 25 2000
EDMC

March 28, 2000

Attention: Joan Kessner

RECEIVED
MAR 2000
Data
Log In

Quote Number	:	34636
SDG	:	W03069
Number of Samples	:	four (4)
Sample Matrix	:	Solid
Data Deliverable	:	Summary
Date SDG Closed	:	February 29, 2000

II. Introduction

On February 16, 2000, four (4) "solid" samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received at the St. Louis lab within the temperature criteria. Limited sample volume was provided due to the high radiation levels of the samples. The samples were consumed before all analyses were performed. Additional volume was received on 3/20/00 at the St. Louis lab. See the attached Sample Summary for a listing of Client Ids and their associated Lab numbers.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: ICP Metals - 6010 Super Trace - Lead, Chromium, Silver
Mercury - 7471 - CV
Chromium Hex - 7196

Deviation from Request: None

Data is Incomplete without Case Narrative

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike
MS- Matrix Spike.
MSD- Matrix Spike Duplicate.

V. Comments

General: The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

Due to the high Rad levels for these samples, limited volume was sent. The lab was not able to perform a MS/MSD for the ICP metals.

Data was transmitted by facsimile on 3/27/00.

Metals: A Laboratory Control Sample, Laboratory Control Sample Duplicate and Method Blank were analyzed with each preparation batch per the protocol for this analysis. There was insufficient volume to do a MS/MSD.

There were no other comments or non-conformances associated with this SDG.

Hex Chromium: A Lab Control Sample, Matrix Spike, Matrix Duplicate and Method blank were analyzed with the preparation blank for this analysis.

Due to the limited sample volume, this analysis was done using less than the method required sample volume of 20 grams.

Bechtel Hanford Incorporated
March 28, 2000
Quote Number: 34636
SDG: W03069

I certify that this Summary is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

Marti Ward
St. Louis Project Manager

SAMPLE SUMMARY

F0B290160

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
D94HN	001	B0TBY8-A/B0TBY8-B	12/17/98	10:45
D94J1	002	B0TC00-A/B0TC00-B	12/17/98	11:05
D94J5	003	B0TDJ2-A/B0TDJ2-B	12/21/98	11:35
D94JA	004	B0TDJ3-A/B0TDJ3-B	12/21/98	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

F0B290160

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Hexavalent Chromium	SW846 7196A	SW846 7196
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Severn Trent St. Louis

PSL20300 QUANTERRA INCORPORATED Run Date: 3/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 14:46:57
Quanterra - St. Louis User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 34636
PROJECT MANAGER: MARTI WARD LAB ID: F-0B290160-001
PROJECT #: 100-N CRIB WORK ORDER: D94HN
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 2/17/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/17/98
SITE: B00-032 ANALYTICAL DUE DATE: 3/15/00N
AMOUNT REC"D: 20MLV REPORT DUE DATE: 3/15/00
STORAGE LOC: V1F PRIORITY: 15
LOT COMMENTS: VERY HIGH RAD LEVELS!!!!! SAMPLING TIME: 10:45
MATRIX: SOLID RECEIVING TIME: 8:45
SAMPLE ID: B0TBY8-A
QC PACKAGE: Special Report - see checklist SDG# : W03069
SAMPLE COMMENTS:
RUN DUP CR-6 @@@@HIGH RAD LEVELS@@@@@
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B) METALS, TOTAL - Soils M6010_S AG,CR,PB (A-46-QO-01) D94HN Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	6/15/99
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D94HN Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	1/14/99
Moisture, Percent (160.3) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (A-88-WM-01) D94HN-1-04 Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	3/26/99
Chromium, Hexavalent (7196A) LEACHATE, DI (Routine) (A-82-EA-01) D94HN-1-05 Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	3/26/99	3/30/99

Data is Incomplete without Case Narrative

PSL20300 QUANTERRA INCORPORATED Run Date: 3/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 14:46:57
Quanterra - St. Louis User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 34636
PROJECT MANAGER: MARTI WARD LAB ID: F-0B290160-001-D
PROJECT #: 100-N CRIB WORK ORDER: D94HN MSD
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 2/17/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/17/98
SITE: B00-032 ANALYTICAL DUE DATE: 3/15/00N
AMOUNT REC"D: 20MLV REPORT DUE DATE: 3/15/00
STORAGE LOC: V1F PRIORITY: 15
LOT COMMENTS: VERY HIGH RAD LEVELS!!!!! SAMPLING TIME: 10:45
MATRIX: SOLID RECEIVING TIME: 8:45
SAMPLE ID: B0TBY8-A
QC PACKAGE: Special Report - see checklist SDG# : W03069
SAMPLE COMMENTS:
RUN DUP CR-6 @@@@HIGH RAD LEVELS@@@@@
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B)	06	2/29/00	0/00/00	6/15/99
METALS, TOTAL - Soils				
M6010_S AG,CR,PB				
(A-46-QO-01) D94HN Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	2/29/00	0/00/00	1/14/99
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D94HN Protocol: A QC Program: STANDARD TEST SET				

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PSL20300 QUANTERRA INCORPORATED Run Date: 3/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 14:46:57
Quanterra - St. Louis User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 34636
PROJECT MANAGER: MARTI WARD LAB ID: F-0B290160-001-S
PROJECT #: 100-N CRIB WORK ORDER: D94HN MS
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 2/17/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/17/98
SITE: B00-032 ANALYTICAL DUE DATE: 3/15/00N
AMOUNT REC"D: 20MLV REPORT DUE DATE: 3/15/00
STORAGE LOC: V1F PRIORITY: 15
LOT COMMENTS: VERY HIGH RAD LEVELS!!!!! SAMPLING TIME: 10:45
MATRIX: SOLID RECEIVING TIME: 8:45
SAMPLE ID: B0TBY8-A
QC PACKAGE: Special Report - see checklist SDG# : W03069
SAMPLE COMMENTS:
RUN DUP CR-6 @@@@HIGH RAD LEVELS@@@@@
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B) METALS, TOTAL - Soils M6010_S AG,CR,PB (A-46-QO-01) D94HN Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	6/15/99
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D94HN Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	1/14/99
Chromium, Hexavalent (7196A) LEACHATE, DI (Routine) (A-82-EA-01) D94HN-1-06 Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	3/26/99	3/30/99

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PSL20300 QUANTERRA INCORPORATED Run Date: 3/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 14:46:57
Quanterra - St. Louis User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 34636
PROJECT MANAGER: MARTI WARD LAB ID: F-0B290160-002
PROJECT #: 100-N CRIB WORK ORDER: D94J1
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 2/17/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/17/98
SITE: B00-032 ANALYTICAL DUE DATE: 3/15/00N
AMOUNT REC"D: 20MLV REPORT DUE DATE: 3/15/00
STORAGE LOC: V1F PRIORITY: 15
LOT COMMENTS: VERY HIGH RAD LEVELS!!!!! SAMPLING TIME: 11:05
MATRIX: SOLID RECEIVING TIME: 8:45
SAMPLE ID: B0TC00-A
QC PACKAGE: Special Report - see checklist SDG# : W03069
SAMPLE COMMENTS:
@@@ HIGH RAD LEVELS @@@
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B)	06	2/29/00	0/00/00	6/15/99
METALS, TOTAL - Soils				
M6010_S AG,CR,PB				
(A-46-QO-01) D94J1 Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	2/29/00	0/00/00	1/14/99
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D94J1 Protocol: A QC Program: STANDARD TEST SET				
Moisture, Percent (160.3)	06	2/29/00	0/00/00	3/26/99
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(A-88-WM-01) D94J1-1-02 Protocol: A QC Program: STANDARD TEST SET				
Chromium, Hexavalent (7196A)	06	2/29/00	3/26/99	3/30/99
LEACHATE, DI (Routine)				
(A-82-EA-01) D94J1-1-03 Protocol: A QC Program: STANDARD TEST SET				

Data is Incomplete without Case Narrative

PSL20300 QUANTERRA INCORPORATED Run Date: 3/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 14:46:57
Quanterra - St. Louis User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 34636
PROJECT MANAGER: MARTI WARD LAB ID: F-0B290160-003
PROJECT #: 100-N CRIB WORK ORDER: D94J5
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 2/17/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/21/98
SITE: B00-032 ANALYTICAL DUE DATE: 3/15/00N
AMOUNT REC"D: 20MLV REPORT DUE DATE: 3/15/00
STORAGE LOC: V1F PRIORITY: 15
LOT COMMENTS: VERY HIGH RAD LEVELS!!!!! SAMPLING TIME: 11:35
MATRIX: SOLID RECEIVING TIME: 8:45
SAMPLE ID: B0TDJ2-A
QC PACKAGE: Special Report - see checklist SDG# : W03069
SAMPLE COMMENTS:
@@@ HIGH RAD LEVELS @@@
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B)	06	2/29/00	0/00/00	6/19/99
METALS, TOTAL - Soils				
M6010_S AG,CR,PB				
(A-46-QO-01) D94J5 Protocol: A QC Program: STANDARD TEST SET				
Mercury (7471A, Cold Vapor) - Solids	06	2/29/00	0/00/00	1/18/99
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D94J5 Protocol: A QC Program: STANDARD TEST SET				
Moisture, Percent (160.3)	06	2/29/00	0/00/00	3/30/99
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(A-88-WM-01) D94J5-1-02 Protocol: A QC Program: STANDARD TEST SET				
Chromium, Hexavalent (7196A)	06	2/29/00	3/30/99	4/03/99
LEACHATE, DI (Routine)				
(A-82-EA-01) D94J5-1-03 Protocol: A QC Program: STANDARD TEST SET				

PSL20300 QUANTERRA INCORPORATED Run Date: 3/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 14:46:57
Quanterra - St. Louis User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 34636
PROJECT MANAGER: MARTI WARD LAB ID: F-0B290160-004
PROJECT #: 100-N CRIB WORK ORDER: D94JA
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 2/17/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 12/21/98
SITE: B00-032 ANALYTICAL DUE DATE: 3/15/00N
AMOUNT REC"D: 20MLV REPORT DUE DATE: 3/15/00
STORAGE LOC: V1F PRIORITY: 15
LOT COMMENTS: VERY HIGH RAD LEVELS!!!!! SAMPLING TIME: 12:00
MATRIX: SOLID RECEIVING TIME: 8:45
SAMPLE ID: B0TDJ3-A
QC PACKAGE: Special Report - see checklist SDG# : W03069
SAMPLE COMMENTS:
@@@ HIGH RAD LEVELS @@@
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B) METALS, TOTAL - Soils M6010_S AG,CR,PB (A-46-QO-01) D94JA Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	6/19/99
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D94JA Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	1/18/99
Moisture, Percent (160.3) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (A-88-WM-01) D94JA-1-02 Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	0/00/00	3/30/99
Chromium, Hexavalent (7196A) LEACHATE, DI (Routine) (A-82-EA-01) D94JA-1-03 Protocol: A QC Program: STANDARD TEST SET	06	2/29/00	3/30/99	4/03/99

Mb 2150

Bechtel Hanford Inc. — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

B00-032-01 | Page 1 of 2

Collector: J Gale	Company Contact: J Fancher — Telephone No. 372-9610	Project Coordinator: TRENT, SJ	Price Code 8K — Data Turnaround 15 Days
Project Designation: 100-N Crib Sample Analysis - Soil	Sampling Location: 100-N Crib	SAF No. B00-032	Air Quality
Ice Chest No. GWS - 137	Field Logbook No. EL 1381-3 — COA R11NX32000	Method of Shipment: Fed EX	
Shipped To: Quanterra Incorporated	Offsite Property No. NA	Bill of Lading/Air Bill No. NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

RADIOACTIVE

Special Handling and/or Storage

Preservation	None	
Type of Container	~~GP~~ G	125 ~ 15 ml
No. of Container(s)	1	
Volume	~~10g~~ 20 ml	RE ~ 15 ml
SAMPLE ANALYSIS	See item (1) in Special Instructions.	

W03069

Sample No.	Matrix *	Sample Date	Sample Time	See item (1)		
B0TBY8-A 001	Soil	12-17-98	1045	X	1X40V	262 pulp
B0TC00-A 002	Soil	12-17-98	1105	X	↓	↓
B0TDJ2-A 003	Soil	12-21-98	1135	X	↓	↓
B0TDJ3-A 004	Soil	12-21-98	1200	X	↓	↓

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
SJ GALE [signature]	2-16-00 1000	Rikki Thoran / R Thoran	2-16-00 / 1000
Rikki Thoran / R Thoran	2-16-00 / 1430	FED EX	
FED EX		[signature]	2-17-00 0845

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010A (Supertrace) {Chromium, Lead, Silver}; Mercury - 7471 - (CV); Chromium Hex - 7196

Matrix *: S=Soil, SE=Sediment, SO=Solid, SL=Sludge, W=Water, O=Oil, A=Air, DS=Drum Solids, DL=Drum Liquids, T=Tissue, WI=Wipe, L=Liquid, V=Vegetation, X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

Data is Incomplete without Case Narrative

Severn Trent St. Louis

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC No

Page 2 of 2

Collector: R L CHAMBERS	Contact/Requestor: Rick A. Esch/Severn Trent	Telephone No.: 3-4314/2-9651 MSIN: T6-12 FAX: 373-1878
SAF No.	Sample Origin: 1331-N/1325-N Facility	Purchase Order/Charge Code
Project Title: N-Facility	Logbook No.	Ice Chest No. / Temp.
Shipped To (Lab)	Method of Shipment	Bill of Lading/Air Bill No.
Protocol	Data Turnaround	Offsite Property No.

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
B0TC00-A	S00M000094	S			1/20 mL glass	10.0579 g sample	None
B0TC00-B	S00M000095	S			1/20 mL glass	10.0732 g sample	None
B0TDJ2-A	S00M000088	S			1/20 mL glass	10.1095 g sample	None
B0TDJ2-B	S00M000089	S			1/20 mL glass	10.0006 g sample	None
B0TDJ3-A	S00M000090	S			1/20 mL glass	9.9765 g sample	None
B0TDJ3-B	S00M000091	S			1/20 mL glass	10.0752 g sample	None
B0TBY8-A	S00M000092	S			1/20 mL glass	10.0829 g sample	None
B0TBY8-B	S00M000093	S			1/20 mL glass	10.0132 g sample	None

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ No

SPECIAL INSTRUCTIONS Hold Time

This chain of custody documents that the above samples were returned to the customer.

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
R L Chambers/RL Chambers	2-16-00	SJ BALE/SJ Bale	2-16-00 0910
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix*

S = Soil		DS = Drum Solids	
SE = Sediment		DL = Drum Liquids	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION: Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

DISTRIBUTION: White - Remain with Samples Color - Customer

BC-6000-828 (04/98)

Severn Trent St. Louis

RADIOACTIVE SHIPMENT RECORD

106694 3.

Page 1 of 2

1. SHIP FROM U.S. DEPT. OF ENERGY C/O
Company [illegible]
Address [illegible]
City, State, Zip [illegible]
Contact [illegible]
Phone [illegible]

4. Ship ☒ Prepaid ☐ Collect
Via ☐ Motor ☒ Air Psgr ☐ UPS ☐ Rail ☐ Air Cargo ☐ Site Carrier
SHIPMENT AUTHORIZATION NUMBER

2. SHIP TO
Company [illegible]
Address 12715 RIVER TRAIL NORTH
City, State, Zip EARTH CITY, MO, 63045
Attention MATT CAHILL
Phone [illegible]

6. Markings Applied
Radioactive - LSA ☐
Radioactive - SCO ☐
Type A ☐
Type B with trefoil ☐

8. LSA Description
LSA-I ☐
LSA-II ☐ N/A
LSA-III ☐
SCO-I ☐
SCO-II ☐

10. Labels Applied
Empty ☐
Radioactive White - I ☐
Radioactive Yellow - II ☐
Radioactive Yellow - III ☐
Subsidiary Hazard ☐

7. For Normal Form only
Identify
Physical Form ☐ Liquid ☐ Gas ☒ Solid
Chemical Form ☒ Elemental ☐ Metal ☐ Nitrate ☐ Oxide ☐ Mixture ☐ Other

9. EMERGENCY RESPONSE
Telephone [illegible]
Emergency Response Guide(s) 161

Highway Route Controlled Quantity ☐
Exclusive Use Shipment with instructions ☐
Placards Applied ☐
If Rail Specify:
Fissile Excepted, Grams <1 Gm ☒
Excepted Package Statement ☒

5. HM

	Proper Shipping Name:	Radioactive Material,	
☐	excepted package - empty packaging	7	UN2910
☐	excepted package - instruments or articles	7	UN2910
☒	excepted package - limited quantity of material	7	UN2910
☐	excepted package - articles manufactured from natural or depleted uranium or natural thorium	7	UN2910
☐	Special Form, n.o.s.	7	UN2974
☐	Low Specific Activity, n.o.s.	7	UN2912
☐	n.o.s.	7	UN2982
☐	Fissile, n.o.s.	7	UN2918
☐	Surface Contaminated Object	7	UN2913

Warning -- Fissile Material Controlled Shipment. Do Not Load More Than [illegible] Packages Per Vehicle. In Loading and Storage Areas, Keep at Least 20 Feet From Other Packages Bearing Radioactive Labels. [illegible]

11.	No. Pkg.	Model Package	COC/Spec	Serial No.	Seal No.	Isotopes	T.I.	Bq/Package	Gr. Wt. Kg.
	1	ICE CHEST COOLER	STRONG LIGHT	GWS 137	[illegible]	[illegible]	N/A	[illegible]	[illegible]
		IN WOOD BOX				[illegible]			150 lbs
		PLASTIC JARS BUBBLE WRAPPED, DOUBLE BAGGED, PACKED WITH							
		WET ICE AND CUSHIONING MATERIAL. TOTAL VOLUME 30m³/42 gm							
		(Shipper may describe package in detail on one of the unused lines above)				TOTALS	N/A	[illegible]	[illegible]

12. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
Certifier's Signature [illegible] On behalf of DOE-RL | Date [illegible] | Organization ERC-AFS | Complete Cost Code (Inc. End Function) RINK32000

13. Surface Dose Rate of Package
☒ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+β γ)
Dose Rate @ 1 Meter from Surface of Package
☒ <0.005 or _____ mSv/hr
<0.5 or _____ mrem/hr (N+β γ)
Additional Data and Instructions (inc. Readings on Internal Packaging)
Signature - Radiation Monitoring [illegible]

Smears of Outer Container
☒ <0.41 Bq (22 dpm) β γ /cm²
☒ <0.04 Bq (2.2 dpm) α /cm²
☒ <Tbl. 2-2 HSRCM Onsite Limits

TRUCK LOAD OR EXCLUSIVE USE
Surface ☒ <2 mSv/hr (200 mrem/hr)
@ 2 meters ☒ <0.1 mSv/hr (10 mrem/hr)
@ Cab or sleeper ☒ <0.02 mSv/hr (2 mrem/hr) (Using N+β γ)

Bldg. 5720 | Survey No. [illegible] | Date [illegible]

14. TRANSPORTER
Vehicle Number [illegible]
DRIVER SIGNATURE [illegible]

RECEIVER
RECEIVER SIGNATURE
Date

15. OFFSITE AUTHORIZATION
Shipment has been inspected and verified to be in compliance with DOT regulations
Authorized Signature [illegible] | Printed Name [illegible] | Date [illegible]

16. AUTHORIZATION FOR SHIPMENT
AIR TRANSPORT CERTIFICATION ☐ N/A
CARGO AIRCRAFT ☐ Cargo Aircraft Only Labels Applied
PASSENGER AIRCRAFT ☐ Ltd Qty ☐ <3 T.I. ☐ Research/Medical Diagnosis ☐ Human Medical Research
Pkg. Dimensions (cm)

17. OFFSITE AUTHORIZATION
Tracking No. [illegible] | Date Shipped [illegible] | Routing [illegible] | ETA [illegible]
Surveyed By [illegible] | Date [illegible] | Approved for Shipment Offsite [illegible] | Date [illegible]

54-6000-088 (06/97)

Data is Incomplete without Case Narrative

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Table 5-8. 116-N-3 Crib Surface Sample Analytical Laboratory Results.

Sample number	B0TBY8	B0TBY9	B0TC00	B0TC01
Location/description	NE Hatch	SE Hatch	SW Hatch	NW Hatch
Easting (m)	571,930.75	571,944.29	571,894.39	571,880.86
Northing (m)	149,618.82	149,586.58	149,565.63	149,597.87
Distance from crib along centerline of trench (m)	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sample date	12/17/98	12/17/98	12/17/98	12/17/98
Mean elevation of sample (m asl)	135.43	135.43	135.43	135.59
Lift thickness (m)	0.08	0.08	0.08	0.08
Mean depth (m)	0.04	0.04	0.04	0.04
Radioisotopes (pCi/g)				
Americium-241	4,150 X	6,670	9,010 X	41,100
Cesium-137	96,200 X	100,000	159,000 X	301,000
Cobalt-60	317,000 X	558,000	715,000 X	2,250,000
Europium-152	U	U	U	U
Europium-154	U	U	U	U
Europium-155	U	U	U	U
Gross alpha	9,990	15,000	20,900	84,600
Gross beta	444,000	665,000	904,000	2,840,000
Plutonium-238	1,330	2,090	2,550	9,620
Plutonium-239/240	5,850 X	8,690	12,700 X	52,100
Potassium-40	U	U	U	U
Strontium-89/90	12,200 X	8,970	16,500 X	55,000
Uranium-235	U	U	U	U
Uranium-238	U	U	U	U
TCLP Metals (mg/L)				
Arsenic	0.375 U	0.375 U	0.375 U	0.375 U
Barium	0.811	0.934	0.994	0.749
Cadmium	0.0188 U	0.0188 U	0.0188 U	0.0272
Chromium	0.0375 U	0.0375 U	0.0455	0.0375 U
Lead	0.375 U	0.375 U	0.375 U	0.375 U
Mercury	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Selenium	0.375 U	0.375 U	0.375 U	0.375 U
Silver	0.0953	0.085	0.0984	0.102

U = Result was below detection limit

use 5 highest

COA TR11NX3200

Data is Incomplete without Case Narrative

16

Table 5-7. 116-N-1 Trench Surface Sample Analytical Laboratory Results.

Sample number	B0TDJ4	B0TDJ3	B0TDJ2	B0TDJ1
Location/description	Leg B, Hatch 4	Leg C, Hatch 5	Leg D, Hatch 7	Leg E, Hatch 10
Easting (m)	571,566.56	571,573.46	571,645.47	571,720.12
Northing (m)	149,874.66	149,907.47	149,927.47	150,034.30
Distance from crib along centerline of trench (m)	147.40	187.34	265.87	402.33
Sample date	12/21/98	12/21/98	12/21/98	12/21/98
Mean elevation of sample (m asl)	134.82	134.82	134.82	134.82
Lift thickness (m)	0.08	0.08	0.08	0.08
Mean depth (m)	0.04	0.04	0.04	0.04
Radioisotopes (pCi/g)				
Americium-241	44,700	19,900	16,000	18,700
Cesium-137	412,000	251,000	333,000	429,000
Cobalt-60	2,754,000	1,003,000	1,032,000	1,003,000
Europium-152	U	U	U	U
Europium-154	U	U	U	U
Europium-155	U	U	U	U
Gross alpha	85,000	38,500	34,000	34,800
Gross beta	3,100,000	1,300,000	1,390,000	1,470,000
Plutonium-238	10,500	2,980	5,310	4,700
Plutonium-239/240	52,200	18,400	18,200	15,800
Potassium-40	U	U	U	U
Strontium-89/90	132,000	26,800	36,100	24,900
Uranium-235	U	U	U	U
Uranium-238	U	U	U	U
TCLP Metals (mg/L)				
Arsenic	0.375 U	0.375 U	0.500 U	0.500 U
Barium	0.188 U	0.937	0.754	0.366
Cadmium	0.140	0.0188 U	0.0562	0.0733
Chromium	0.0375 U	0.137	0.405	0.137
Lead	0.375 U	0.375 U	0.500 U	0.500 U
Mercury	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Selenium	0.375 U	0.375 U	0.500 U	0.500 U
Silver	0.0945	0.0902	0.102	0.104

U = result was below detection limit

Severn Trent St. Louis

Quanterra *Environmental Services*

000047

Lot No.: F0B190160
W03069

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Bechtel Hanford
Quote No: 34636
Shipper/No: Fed X 814613724056

Date: 2-17-00 Time: 0845
Initiated by: [signature]
RFA/COC Numbers: B00-032

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: ________
   - ☐ pH________
   - ☐ other:________
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: ________
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing/not tamper evident type (circle all that apply).
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: ________
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Sample volume insufficient for analysis
11. ☐ Other (explain below)

☒ **No variances were noted during sample receipt.**
☒ **Cooler Temperature Upon Receipt in °C:** 2°

Temperature Variance Does Not Affect the Following Analyses: ________

Notes: High RAO levels

Corrective Action:

☐ Client's Name: ________ Informed verbally on: ________ By: ________
☐ Client's Name: ________ Informed in writing on: ________ By: ________

☐ Sample(s) processed "as is". ________
☐ Sample(s) on hold until: ________ If released, notify: ________

Sample Control Supervisor Review: [signature] Date: 2-17-00
Project Management Review: MWard Date: 2.29.00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 02/01/00

Data is Incomplete without Case Narrative

Severn Trent St. Louis

GROUP = F301

TMD5 CM000173

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B00-032-02	Page 1 of 2

Collector: J Gale	Company Contact: J Fancher; Telephone No. 372-9610	Project Coordinator: TRENT, SJ	Price Code 8K; Data Turnaround 15 Days
Project Designation: 100-N Crib Sample Analysis - Soil	Sampling Location: 100-N Crib H0752 (7359)	SAF No. B00-032	Air Quality ☐
Ice Chest No. ERC 96-019	Field Logbook No. EL 1381-3; COA 2000 R11NX3~~V4A0~~	Method of Shipment: Fed EX RAD	SDG = H0752
Shipped To TMA/RECRA	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS: RADIOACTIVE

Special Handling and/or Storage

Preservation	None
Type of Container	G
No. of Container(s)	1
Volume	2.0oz
SAMPLE ANALYSIS	See item (1) in Special Instructions.

W03069A

Sample No.	Matrix *	Sample Date	Sample Time	See item (1)
B0TBY8-B	Soil	12-17-98	1045	X
B0TC00-B	Soil	12-17-98	1105	X
B0TDJ2-B	Soil	12-21-98	1135	X
B0TDJ3-B	Soil	12-21-98	1200	X

1X 1g+ Can

Margin: 1, 2, 3, 4

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
DJ GALE	2 16 00 1000	Rikki Thoren	2-16-00/1000
Rikki Thoren	2-16-00/1430	FED EX	
		[illegible]	2/17/00 10:00AM
[illegible]	3/17/00 11:15AM	JA Corso	3-17-00 11:25
JA Corso	3-17-00 12:30	Fed Ex	3-17-00
FED EX		[illegible]	3-20-00 0845

SPECIAL INSTRUCTIONS

(1) Isotopic Plutonium; Isotopic Uranium; Americium-241/Curium-244 {Americium-241, Curium-244}; Americium-241/Curium-244 (Add-on) {Curium-242}; Nickel-63; Neptunium-237

Matrix *: S=Soil, SE=Sediment, SO=Solid, SL=Sludge, W=Water, O=Oil, A=Air, DS=Drum Solids, DL=Drum Liquids, T=Tissue, WI=Wipe, L=Liquid, V=Vegetation, X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

Quanterra Environmental Services

000173

Lot No.: FOC200121
WO3069A

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Richland Date: 3-20-00 Time: 0845

Quote No: 34636 Initiated by: [illegible]

Shipper/No: FedEx 820085540099 RFA/COC Numbers: B00-032-02

Condition/Variance (Check all that apply):

1.	☐	Sample received broken/leaking.	8.	☐	Sample ID on container does not match sample ID on paperwork. Explain: _____
2.	☐	Sample received without proper preservative.			
	☐	Cooler temperature not within 4°C ± 2°C			
		Record temperature: _____			
	☐	pH _____	9.	☐	All coolers on airbill not received with shipment.
	☐	other: _____	10.	☐	Sample volume insufficient for analysis
3.	☐	Sample received in improper container.	11.	☐	Other (explain below)
4.	☐	Sample received without proper paperwork. Explain: _____			
5.	☐	Paperwork received without sample.			
6.	☐	No sample ID on sample container.			
7.	☐	Custody tape disturbed/broken/missing/not tamper evident type (circle all that apply).			

☒ **No variances were noted during sample receipt.**

☒ **Cooler Temperature Upon Receipt in °C:** 5°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes:

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is". _____

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: [signature] Date: 3-20-00

Project Management Review: MWard Date: 3-20-00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 02/01/00

BECHTEL HANFORD, INC.

Client Sample ID: B0TBY8-A/B0TBY8-B

TOTAL Metals

Lot-Sample #...: F0B290160-001 **Matrix.....: SOLID**
Date Sampled...: 12/17/98 **Date Received..: 02/17/00**
% Moisture.....: 0.73

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0082202						
Chromium	**4.8**	**1.0**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94HN108**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.30				
Lead	**3.4 B**	**10.1**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94HN10C**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 3.3				
Silver	**ND**	**1.0**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94HN10F**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.93				
Prep Batch #...: 0082247						
Mercury	**0.31**	**0.034**	**mg/kg**	**SW846 7471A**	**03/14-03/23/00**	**D94HN101**
		Dilution Factor: 1		Initial Wgt/Vol: 0.6 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.0071				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

BECHTEL HANFORD, INC.

Client Sample ID: B0TC00-A/B0TC00-B

TOTAL Metals

Lot-Sample #...: F0B290160-002 **Matrix.....:** SOLID
Date Sampled...: 12/17/98 **Date Received..:** 02/17/00
% Moisture.....: 6.0

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0082202						
Chromium	**27.4**	**1.1**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94J1104**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.32				
Lead	**48.2**	**10.6**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94J1105**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 3.4				
Silver	ND	1.1	mg/kg	SW846 6010B	03/22-03/23/00	D94J1106
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.98				
Prep Batch #...: 0082247						
Mercury	**0.79**	**0.035**	**mg/kg**	**SW846 7471A**	**03/14-03/23/00**	**D94J1101**
		Dilution Factor: 1		Initial Wgt/Vol: 0.6 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.0074				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0TDJ2-A/B0TDJ2-B

TOTAL Metals

Lot-Sample #...: F0B290160-003 **Matrix.....:** SOLID
Date Sampled...: 12/21/98 **Date Received..:** 02/17/00
% Moisture.....: 10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0082202						
Chromium	**3260**	**1.1**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94J5104**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.33				
Lead	**161**	**11.1**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94J5105**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 3.6				
Silver	**ND**	**1.1**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D94J5106**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 1.0				
Prep Batch #...: 0082247						
Mercury	**1.4**	**0.037**	**mg/kg**	**SW846 7471A**	**03/14-03/23/00**	**D94J5101**
		Dilution Factor: 1		Initial Wgt/Vol: 0.6 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.0078				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0TDJ3-A/B0TDJ3-B

TOTAL Metals

Lot-Sample #...: F0B290160-004 **Matrix.....:** SOLID
Date Sampled...: 12/21/98 **Date Received..:** 02/17/00
% Moisture.....: 14

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0082202						
Chromium	1300	1.2	mg/kg	SW846 6010B	03/22-03/23/00	D94JA104
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.35				
Lead	56.2	11.6	mg/kg	SW846 6010B	03/22-03/23/00	D94JA105
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 3.8				
Silver	ND	1.2	mg/kg	SW846 6010B	03/22-03/23/00	D94JA106
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 1.1				
Prep Batch #...: 0082247						
Mercury	0.92	0.039	mg/kg	SW846 7471A	03/14-03/23/00	D94JA101
		Dilution Factor: 1		Initial Wgt/Vol: 0.6 g	Final Wgt/Vol..: 100 mL	
		MDL.....: 0.0081				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F0B290160 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0C220000-202 **Prep Batch #...:** 0082202						
Chromium	ND	1.0	mg/kg	SW846 6010B	03/22-03/23/00	D9X1G104
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
Lead	**0.108 B**	**10.0**	**mg/kg**	**SW846 6010B**	**03/22-03/23/00**	**D9X1G101**
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
Silver	ND	1.0	mg/kg	SW846 6010B	03/22-03/23/00	D9X1G102
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
MB Lot-Sample #: F0C220000-247 **Prep Batch #...:** 0082247						
Mercury	ND	0.033	mg/kg	SW846 7471A	03/22-03/23/00	D9X7N101
		Dilution Factor: 1		Initial Wgt/Vol: 0.6 g	Final Wgt/Vol..: 100 mL	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: F0B290160 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium	99.4	94.6	mg/kg	95		SW846 6010B	03/22-03/23/00	0082202
	99.4	96.5	mg/kg	97	2.0	SW846 6010B	03/22-03/23/00	0082202
		Dilution Factor: 1				Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
Lead	97.8	99.0	mg/kg	101		SW846 6010B	03/22-03/23/00	0082202
	97.8	100	mg/kg	103	1.5	SW846 6010B	03/22-03/23/00	0082202
		Dilution Factor: 1				Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
Silver	107	112.4	mg/kg	105		SW846 6010B	03/22-03/23/00	0082202
	107	111	mg/kg	103	1.7	SW846 6010B	03/22-03/23/00	0082202
		Dilution Factor: 1				Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 100 mL	
Mercury	3.13	3.32	mg/kg	106		SW846 7471A	03/14-03/23/00	0082247
	3.13	3.49	mg/kg	112	5.1	SW846 7471A	03/14-03/23/00	0082247
		Dilution Factor: 1				Initial Wgt/Vol: 0.6 g	Final Wgt/Vol..: 100 mL	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BECHTEL HANFORD, INC.

Client Sample ID: B0TBY8-A/B0TBY8-B

General Chemistry

Lot-Sample #...: F0B290160-001 **Work Order #...:** D94HN **Matrix.....:** SOLID
Date Sampled...: 12/17/98 **Date Received..:** 02/17/00
% Moisture.....: 0.73

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	2.0	mg/kg	SW846 7196A	03/24/00	0084337
	Dilution Factor: 1			Initial Wgt/Vol: 1.03 g	Final Wgt/Vol..: 0	
	MDL.....: 0.054					
Percent Moisture	**0.73**	**0.10**	**%**	**MCAWW 160.3 MOD**	**03/08-03/09/00**	**0069149**
	Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
	MDL.....:					

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F0B290160 **Matrix.....:** SOLID
Date Sampled...: 12/17/98 **Date Received..:** 02/17/00

Percnt Moisture: 0.0

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium			Work Order #...: D94HN106			MS Lot-Sample #: F0B290160-001		
	ND	10.1	7.92	mg/kg	79	SW846 7196A	03/24/00	0084337
			Dilution Factor: 1		Initial Wgt/Vol: 1.03 g		Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F0B290160 **Work Order #...:** D94HN-SMP **Matrix.....:** SOLID
D94HN-DUP

Date Sampled...: 12/17/98 **Date Received..:** 02/17/00

% Moisture.....: 0.73

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium						SD Lot-Sample #:	F0B290160-001	
	ND	ND	mg/kg	0	(0-35)	SW846 7196A	03/24/00	0084337

Dilution Factor: 1 Initial Wgt/Vol: 1.03 g Final Wgt/Vol..: 0

BECHTEL HANFORD, INC.

Client Sample ID: B0TC00-A/B0TC00-B

General Chemistry

Lot-Sample #...: F0B290160-002 **Work Order #...: D94J1** **Matrix.....: SOLID**
Date Sampled...: 12/17/98 **Date Received..: 02/17/00**
% Moisture.....: 6.0

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	0.42	mg/kg	SW846 7196A	03/24/00	0084337
		Dilution Factor: 1		Initial Wgt/Vol: 5.05 g	Final Wgt/Vol..: 0	
		MDL.....: 0.057				
Percent Moisture	**6.0**	**0.10**	**%**	**MCAWW 160.3 MOD**	**03/08-03/09/00**	**0069149**
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
		MDL.....:				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0TDJ2-A/B0TDJ2-B

General Chemistry

Lot-Sample #...: F0B290160-003 **Work Order #...:** D94J5 **Matrix.....:** SOLID
Date Sampled...: 12/21/98 **Date Received..:** 02/17/00
% Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	0.44	mg/kg	SW846 7196A	03/24/00	0084337
		Dilution Factor: 1		Initial Wgt/Vol: 5.07 g	Final Wgt/Vol..: 0	
		MDL.....: 0.060				
Percent Moisture	10.1	0.10	%	MCAWW 160.3 MOD	03/08-03/09/00	0069149
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
		MDL.....:				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

BECHTEL HANFORD, INC.

Client Sample ID: B0TDJ3-A/B0TDJ3-B

General Chemistry

Lot-Sample #...: F0B290160-004 **Work Order #...:** D94JA **Matrix.....:** SOLID
Date Sampled...: 12/21/98 **Date Received..:** 02/17/00
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	0.46	mg/kg	SW846 7196A	03/24/00	0084337
		Dilution Factor: 1		Initial Wgt/Vol: 5.02 g	Final Wgt/Vol..: 0	
		MDL.....: 0.063				
Percent Moisture	13.9	0.10	%	MCAWW 160.3 MOD	03/08-03/09/00	0069149
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
		MDL.....:				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F0B290160 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium		Work Order #: DA2VH101		MB Lot-Sample #:	F0C240000-337	
	ND	0.39	mg/kg	SW846 7196A	03/24/00	0084337
		Dilution Factor: 1		Initial Wgt/Vol: 20 g	Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F0B290160 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium		Work Order #: DA2VH102		LCS Lot-Sample#: F0C240000-337			
	0.500	0.495	mg/kg	99	SW846 7196A	03/24/00	0084337
		Dilution Factor: 1		Initial Wgt/Vol: 20 g		Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.